EXTRA PRACTICE — Exercises

Unit V – Second Degree Relations and Higher - Polynomials
Part C – Solving Equations and Inequalities by Factoring
Lesson 4 – Special Products - Perfect Square Trinomial

Find the indicated product for each of the following.

1. $(5y+4)(5y+4)$
2. $(4a-7)(4a-7)$
3. $(3a+2)(3a+2)$
4. $(2x+5y)^2$
5. $(^{-}3-7x)^2$
6. $(xy+2)(xy+2)$
7. $(3x^4-5y^3)^2$
8. $(a^x+b^y)(a^x+b^y)$
9. $(6c+2)^2$

Solve the following polynomial equations recognizing the polynomials as perfect square trinomials and knowing that each can be rewritten as a product of two identical binomials.

10. $x^2+2x+1=0$
11. $p^2+36=12p$
12. $4x^2-28x+49=0$
13. $\frac{1}{4}x^2+3x+9=0$
14. $1-6a+9a^2=0$
15. $4x^2+12x+9=0$
16. $\frac{4}{9}x^2+\frac{16}{27}x+\frac{16}{81}=0$
17. $25x^2-20x+4=0$
18. $x^2-\frac{3}{2}x+\frac{9}{16}=0$

EXTRA PRACTICE — Answer Key

Unit V – Second Degree Relations and Higher - Polynomials
Part C – Solving Equations and Inequalities by Factoring
Lesson 4 – Special Products - Perfect Square Trinomial

Find the indicated product for each of the following.

1. $25y^2 + 40y + 16$

2. $16a^2 - 56a + 49$

3. $9a^2 + 12a + 4$

4. $4x^2 + 20xy + 25y^2$

5. $9 + 42x + 49x^2$

6. $x^2y^2 + 4xy + 4$

7. $9x^8 - 30x^4y^3 + 25y^6$

8. $a^{2x} + 2a^xb^y + b^{2y}$

9. $36c^2 + 24c + 4$

Solve the following polynomial equations recognizing the polynomials as perfect square trinomials and knowing that each can be rewritten as a product of two identical binomials.

10. $S = \{^-1\}$

11. $S = \{6\}$

12. $S = \left\{\frac{7}{2}\right\}$

13. $S = \{^-6\}$

14. $S = \left\{\frac{1}{3}\right\}$

15. $S = \left\{^-\frac{3}{2}\right\}$

16. $S = \left\{^-\frac{2}{3}\right\}$

17. $S = \left\{\frac{2}{5}\right\}$

18. $S = \left\{\frac{3}{4}\right\}$